

IN THE CLAIMS:

Please cancel claims 14 and 15 without prejudice.

Please amend claim 13 to read as follows:

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13. (Amended) Apparatus for detecting particles on a surface of a semiconductor wafer, said surface having repetitive patterns, the apparatus comprising:

(a) a laser for illuminating an area on said surface with a beam of plane polarized light,

(b) a first camera,

(c) a first imaging lens for collecting light scattered from the area, said first lens forming in its back focal plane a Fourier transformation of the image in the Fourier plane of the first lens,

(d) a second camera for receiving an image of the Fourier transformation and producing a stream of digital electrical signals of the image received,

B 6 (e) a processor for processing the electrical image produced by the second camera,

(f) a Fourier mask disposed in front of the first camera, the Fourier mask including an electrically addressable SLM operating in a reflective mode and a crossed polarizer, and

(g) a controller for receiving information from the processor and applying voltage signals to the SLM in response to such information received from the processor,

(h) said first camera receiving an image of the area illuminated by the first imaging lens and not blocked by the Fourier mask.

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Please add claims 16-18 as follows:

16. A method for detecting particles on a surface of a semiconductor wafer, said surface having repetitive patterns, the method comprising:

(a) illuminating an area on said surface with a beam of polarized light,

(b) collecting light scattered from said area using a first imaging lens, said first imaging lens forming a Fourier diffraction pattern of said light collected,

(c) removing from said Fourier diffraction pattern light whose intensity is above a predetermined level indicative of background information and leaving in areas whose intensity is below said threshold level indicative of particle information using a Fourier imaging camera, a processor, a spatial light modulator which is electrically addressable and a polarization discriminator in the form of a crossed polarizer, and

87 (d) recording an image of the area imaged using scattered light not removed by said Fourier mask.

17. The apparatus of claim 12 and further including a third camera for forming an image of the diffraction pattern in the Fourier plane.

18. The apparatus of claim 13 and further including a third camera for forming an image of the diffraction pattern in the Fourier plane.

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REMARKS

The references cited by the Examiner in the rejections of the claims along with the Examiner's comments in the above noted Office Action have been diligently studied. Reconsideration of the application in light of this amendment is respectfully requested.